

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>In re Application of:</b>	§	<b>Art Group: 3672</b>
	§	
<b>David R. Hall, et al.</b>	§	<b>Examiner: Smith, Matthew J.</b>
	§	
<b>Serial No.: 10/707,673</b>	§	
	§	
<b>Filed: December 31, 2003</b>	§	<b>Docket No.: 66.0043</b>
	§	
<b>For: Apparatus and Method for Bonding a</b>	§	
<b>Transmission Line to a Downhole Tool</b>	§	

**VIA ELECTRONIC SUBMISSION**

September 6, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This paper is timely submitted in response to the Patent and Trademark Office Action mailed July 12, 2006 for which the shortened–statutory period for response is October 12, 2006. Reconsideration of the application in view of the following amendments and remarks is respectfully requested.

## AMENDMENT

Please amend the above-identified application as follows:

### IN THE CLAIMS:

Please cancel claims 9 and 18 without prejudice.

Claims 1, 3, 4, 7, 8, 10, 12, 13, 16, 17, 19, 21 and 22 are pending in the application.

1. (Currently amended) An apparatus for bonding a transmission line to the inside diameter of a downhole tool, the apparatus comprising:

a pre-formed interface for bonding a transmission line to the inside diameter of a downhole tool, wherein the pre-formed interface is a single continuous component extending most of the length of the downhole tool and comprises:

a first surface substantially conforming to the outside contour of a transmission line; and

a second surface substantially conforming to the inside diameter of a downhole tool

wherein the pre-formed interface is configured to engage at least one recess milled in the surface of the inside diameter.

2. (Canceled)

3. (Original) The apparatus of claim 1, wherein the first surface is bonded to the transmission line.

4. (Original) The apparatus of claim 3, wherein the first surface is bonded to the transmission line using at least one of adhesives and welding.

5. (Canceled)

6. (Canceled)

7. (Original) The apparatus of claim 1, wherein the second surface is bonded to the inside diameter of the downhole tool using at least one of adhesives and welding.

8. (Original) The apparatus of claim 1, wherein the pre-formed interface is pre-formed using at least one method selected from the group consisting of extrusion, stamping, and casting.

9. (Canceled)

10. (Currently amended) A method for bonding a transmission line to the inside diameter of a downhole tool, the method comprising:

pre-forming an interface for bonding a transmission line to the inside diameter of a downhole tool, wherein pre-forming comprises:

forming a first surface as a single continuous component extending most of the length of the downhole tool substantially conforming to the outside contour of a transmission line; and

forming a second surface substantially conforming to the inside diameter of a downhole tool; ~~and~~

bonding the second surface to the inside diameter of the downhole tool; and engaging, by the pre-formed interface, at least one recess milled in the surface of the inside diameter.

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11. (Canceled)

12. (Original) The method of claim 10, further comprising bonding the first surface to the transmission line.

13. (Original) The method of claim 12, wherein bonding further comprises bonding using at least one of adhesives and welding.

14. (Canceled)

15. (Canceled)

16. (Original) The method of claim 10, wherein bonding the second surface to the inside diameter of the downhole tool comprises bonding using at least one of adhesives and welding.

17. (Original) The method of claim 10, wherein pre-forming the interface further comprises pre-forming using at least one method selected from the group consisting of extruding, stamping, and casting.

18. (Canceled)

19. (Currently amended) A method for bonding a transmission line to the inside diameter of a downhole tool, ~~the apparatus~~ comprising the steps of:

- positioning a transmission line near the inside wall of a downhole tool;
- positioning a mold near the transmission line and the inside wall;
- injecting a bonding material into the mold such that the bonding material bonds the transmission line to the inside wall;
- curing the bonding material; and
- removing the mold from the bonding material.

20. (Canceled)

21. The method of claim 19, further comprising prepping the surface of at least one of the inside wall, and the transmission line, before injecting the bonding material.

22. The method of claim 19, further comprising forming gaps in the bonding material at desired intervals along the bonding material.

**REMARKS:**

Claims 9 and 18 have been canceled without prejudice.

Claims 1, 3, 4, 7, 8, 10, 12, 13, 16, 17, 19, 21 and 22 are pending in the application.

The Office rejected claims 1, 3, 4, 7, 10, 12, 13, and 16 under 35 U.S.C. 102(b) as being anticipated by Hawthorn US 2,151, 206.

The Office objected to claims 8, 9, 17, and 18 as being dependent upon a rejected base claim but would be allowable if re-written in independent form to including all the limitations of the base claim and any intervening claims.

Claim 1 has been re-written now to include the limitations of original dependent claim 9 and claim 10 has been re-written now to include limitations of original dependent claim 18. An amendment was also made in line 5 of claim 10 to correct a minor informality. Accordingly Applicants now believe independent claims 1 and 18 to be allowable and respectfully request allowance of these claims.

The Office objected to claim 19 for being indefinite for containing language not being in the form of a method step.

Claim 19 has been amended now to make it read as a proper method claim. Applicants, therefore also respectfully request allowance of this claim.

Applicants believe pending dependent claims 3, 4, 7, 8, 12, 13, 16, 17, 21 and 22, being dependent upon one of allowable base claims 1, 10 and 19, are also allowable and respectfully request allowance of these claims.

In view of the arguments and amendments made herein, Applicants respectfully submit that the application is now in condition for allowance. Accordingly, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

It is believed that there are no fees due at this time. However, the Commissioner is hereby authorized to charge any fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account 180584. If there are any questions concerning the above, please contact the undersigned at (281) 878-5658.

Respectfully submitted,

*/Jeffery E. Daly/*

Electronically signed by Jeffery E. Daly on Sept. 6, 2006.

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<u>9/6/06</u>	<u>/Jeffery E. Daly/</u>
Date	Electronic Signature